

**CBSE TEST PAPER-04  
CLASS - IX MATHEMATICS (Number System)**

- 1) Visualize  $4.\overline{26}$  on the number line up to four decimal place
- 2) Show how  $\sqrt{5}$  can be represented on number line
- 3) Represent  $\sqrt{9.3}$  on number line?
- 4) Represent in the form of p/q (i)  $0.4\overline{7}$  (ii)  $0.\overline{0002}$
- 5) Find the value  $(32)^{2/5}$  and  $(16)^{3/4}$
- 6) Find five rational number between  $\frac{1}{2}$  and  $\frac{1}{3}$
- 7) Simplify  $(5 + \sqrt{7})(2 + \sqrt{5})$
- 8) State whether the following statements are True or False:
  - (i) Every integer is a rational number. (ii) Every rational number is an integer.
  - (iii) Every natural number is a whole number. (iv) Every whole number is a natural number. (v) Every whole number is a rational number. (vi) Every integer is a whole number
- 9) Find the value of "a" and "b" if  $\frac{1}{7+3\sqrt{2}} = a + b\sqrt{2}$
- 10) Define the following: (i) Rational numbers (ii) Irrational numbers (iii) Real numbers
- 11) Find an irrational number between  $\sqrt{5}$  and  $\sqrt{8}$
- 12) If  $x = 4\sqrt{3}$  find  $x^2 + \frac{1}{x^2}$
- 13) Simplify  $\left(\frac{x^l}{x^m}\right)^{l^2+m^2+lm} \left(\frac{x^m}{x^n}\right)^{m^2+n^2+mn} \left(\frac{x^n}{x^l}\right)^{l^2+n^2+ln}$
- 14) Prove that between any two distinct rational numbers a and b where  $b > a$  there exists another rational number
- 15) Write three numbers whose decimal expansions are non-terminating and non-repeating.